

The State of the Economy and Prospects for Tax Revenue in Tennessee

presented to
Tennessee State Funding Board
Nashville, Tennessee

December 12, 2007

by

Albert E. DePrince, Jr.
Professor of Economics and Finance
Jennings A. Jones College of Business
Middle Tennessee State University
Murfreesboro, Tennessee
deprince@mtsu.edu



The State of the Economy and Prospects for Tax Revenue in Tennessee

Contents

The U.S. Economy in Perspective

- Capital Crumble–déjà vu all over again
- Capital Crumble and the GSEs
- Corporate Sector and Credit Problems
- Capital Inflows and National Saving
- International Factors and the Dollar
 - Sovereign Wealth Funds
 - Dollar versus Emerging Market Currencies
 - Dollar versus Industrialized Currencies
- Oil and Natural Gas Prices
- Gold, Oil, and the Dollar
- Household Debt Service Burden

The U.S. Business Cycle in Perspective

- The U.S. in the Global Economy
- Investment Spending
- Industrial Output and Changes in Business Inventories
- Labor Markets Unemployment
- Labor Markets Participation Rates
- Leading Indicators and Consumer Confidence

- Housing and Light Vehicle Sales
- Equity Prices
- Loan Delinquencies

U.S. Economic Outlook

- Setting the Stage the Interest Rate Regime
- Survey Results
- MTSU Economic Outlook

Interest Rates

- Market Outlook
- MTSU Interest Rates

The Tennessee Economy

- Personal Income
- Labor Markets
- Housing
- Spending

Outlook for Tennessee

- Tennessee Economic Outlook
- Outlook for State Revenue
- A Consistency Check
- Contingency View
- Problem Areas



Speed Bumps: Bank Capital Crumble—Déjà Vu All Over Again

Estimates of dimension of subprime mortgages differ a bit but are uniformly large differ

- One puts subprime at \$1.2 trillion of the \$10 trillion outstanding mortgage market
- Another puts it a bit higher at less than 15% of \$11.5 trillion mortgage market

Problem would persist for some time

- One estimate sees 100,000 subprime resets per month for next two years
- FDIC puts the resets at 1.54 million by the end of 2008

Deutsche Bank analysts (11/12) estimate global loss at \$300-\$400 billion

 If so, banks would be forced to write down \$60-\$70 billion, including \$25 billion to date

Royal Bank of Scotland puts global losses at \$250-\$500 billion Another sees capital wiped out if institutions must use *Level 3* rules

New FASB asset quality definitions

Level 1 – mark-to-market; asset's value is based on a real price

Level 2 – mark-to-market, value based on observable inputs used when no quoted prices are available

Level 3 – value based on unobservable inputs reflecting companies' own assumptions about the way assets would be priced

Estimates of *Level 3* assets as percent of capital

- Merrill Lynch & Co. 38%
- Morgan Stanley 251 %
- Goldman Sachs Group Inc. 85 %

Level 3 assets must be marked to market

Source: Bloomberg.com; hedgeworld.com



Speed Bumps: Capital Crumble and the GSEs

FNMA and FHLM own or guarantee 40 percent of the \$11.5 trillion U.S. home loan market

FHLMC (Freddie Mac)

- Reported a net loss of \$2.02 billion in 3Q2007
 - Due partly to setting aside \$1.2 billion for credit losses and writing down the value of assets by \$3.6 billion
- Capital is \$34.6 billion, only \$0.6 billion above the mandatory level set by the Office of Federal Housing Enterprise Oversight (OFHEO).
- Needs more capital
- Ability to support housing severely crimped

FHLMC – continued

 Risks remain – holds \$105 million in securities backed by subprime mortgages of \$713.1 billion

FNMA (Fannie Mae)

- Third-quarter net loss put at \$1.39
 billion
- Due to
 - \$2.24 billion decline in the value of derivative contracts
 - \$1.2 billion in credit losses among the
 \$2.7 trillion of mortgage assets Fannie
 Mae owns or guarantees
- Ability to support housing crimped

Source: bloomberg.com



Speed Bump: Stress Building in Corporate Sector

Siz.e

U.S. corporate bond market totaled \$3.8 trillion (outstanding par value)

- 83% investment grade
- 17% speculative grade

Separately, industrial bonds,

- Speculative grade is 30%
- Investment grade is 70%

Downgrades on the rise

Most rating changes in the third quarter involved investment-grade bonds rather than speculative-grade issues

 Earlier this year, downgrades concentrated in noninvestment grade

Downgrades reached 3.0% of investment-grade volume in the third quarter and upgrades 1.2%.

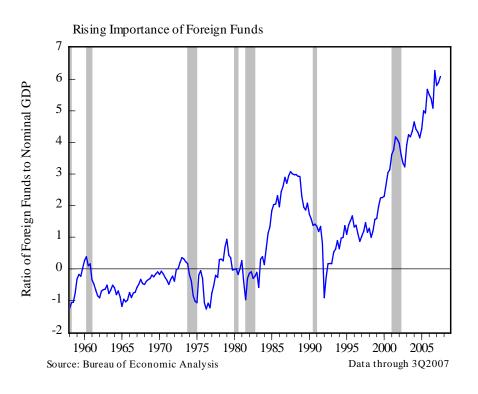
Defaults

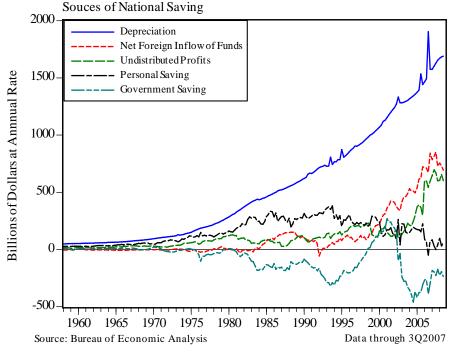
Defaults estimated to rise from 1% to 4% next year

Sources: fitcheratings.com; bloomberg.com



Speed Bumps: U.S. Capital Inflows and National Savings







Speed Bumps: International Factors and the Dollar

Sovereign Wealth Management Funds

- Represents actively managed portion of a country's foreign reserves
- Recent efforts to diversify exchange exposure has had an impact on the dollar
- Governance—issue of role of significant ownership of U.S. (and European) corporation by foreign central banks

End of Dollar Peg

Hong Kong \$ may go to a float or be replaced by the yuan

Several gulf states have (Kuwait) or may drop their dollar pegs (UAE, Qutar)

Diversification

Japan, China, and Taiwan sold U.S.

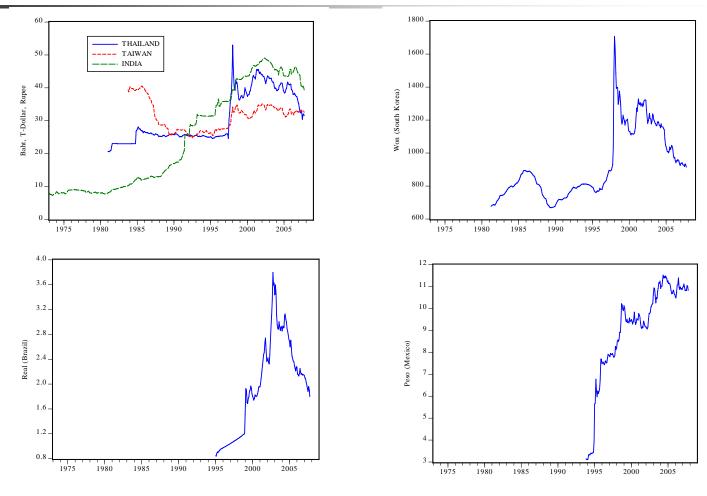
Treasuries at the fastest pace in at least five years in August

- Japan cut its holdings by 4 percent to \$586 billion, the most since a new benchmark for the data was created in March 2000,
- China's ownership of U.S. government bonds fell by 2.2 percent to \$400 billion, the fastest pace since April 2002
- Taiwan's slid 8.9 percent to \$52
 billion, the most since October 2000

As dollar depreciates, it becomes less attractive as investment vehicle

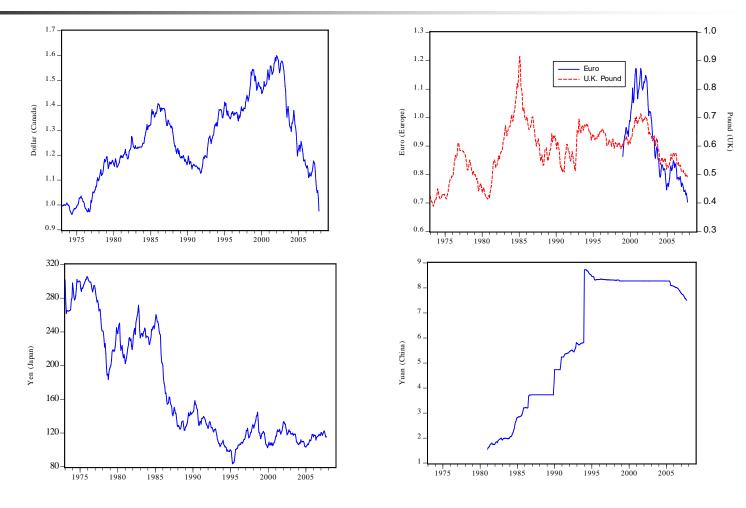
Sources: bloomberg.com

Speed Bumps: Dollar versus Emerging Market Currencies





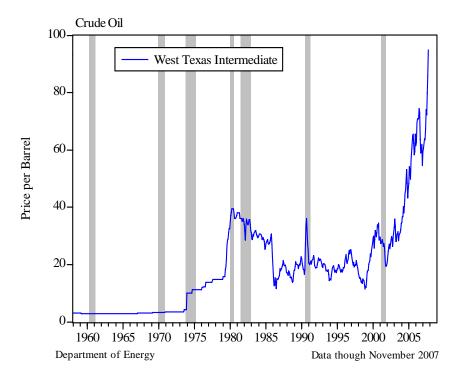
Speed Bumps: \$ Versus Industrialized Countries

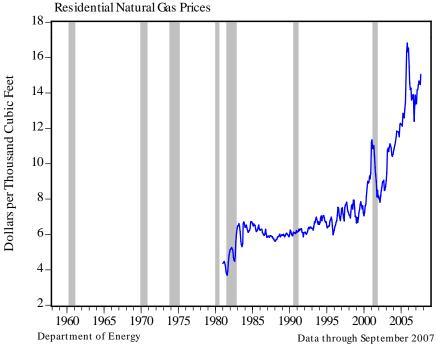


Source: Federal Reserve



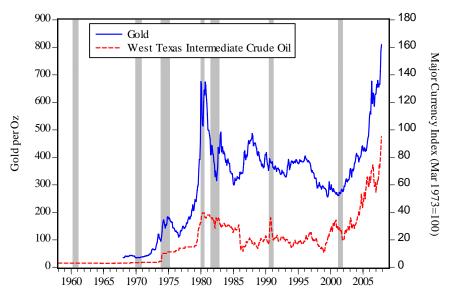
Speed Bumps: Oil and Natural Gas Prices



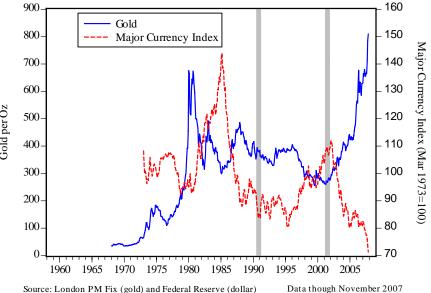




Speed Bumps: Gold, Oil and the Dollar



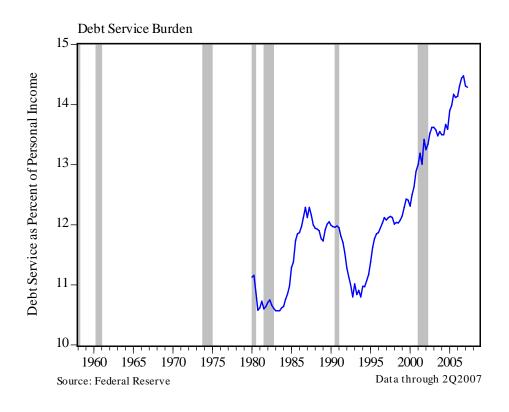
Source: Department of Energy (Oil) and Federal Reserve (dollar) Data though November 2007



Data though November 2007

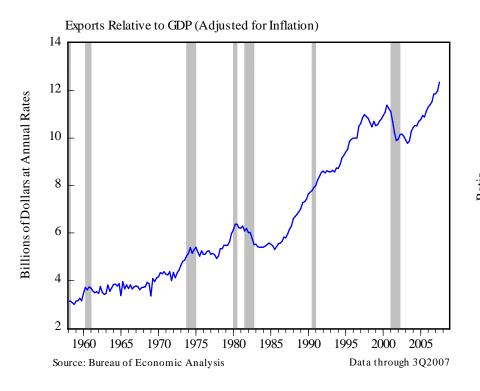


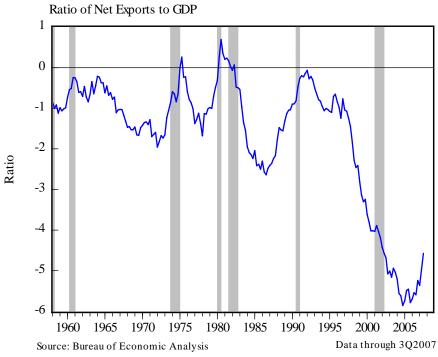
Speed Bumps: Household Debt Service Burden





The U.S. in the Global Economy









Recovery in Technology Spending Still Dominates the Investment Spending Picture

Business equipment and software

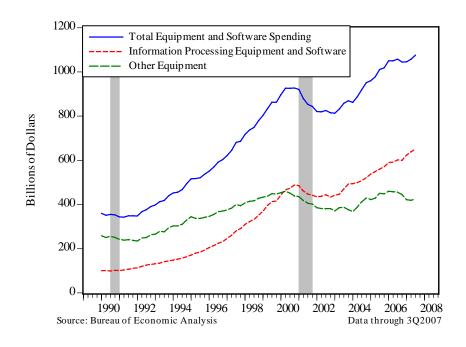
- So far this year 60 percent of total is devoted to information-processing equipment
- Remainder is spread among industrial, transportation, and other equipment

Upturn in technology spending led the upturn in general investment spending throughout this expansion

The strong technology spending in recent years is likely behind the productivity gains in the current economic expansion

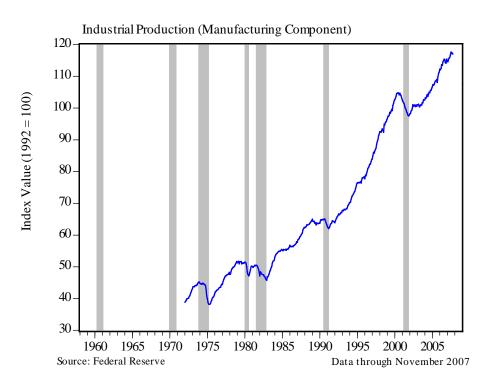
But spending on general investment goods has barely reached its last cyclical peak

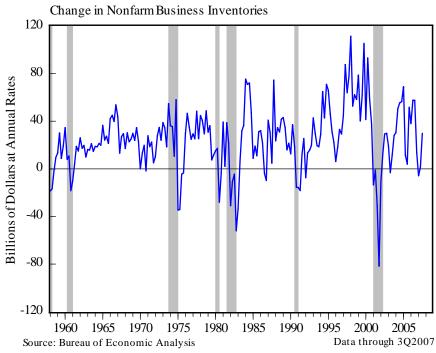
This reflects ample capacity in the manufacturing sector (roughly 81 percent in August 2006)





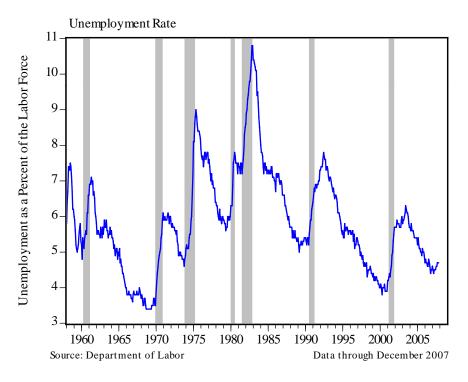
Industrial Output and Changes in Inventories

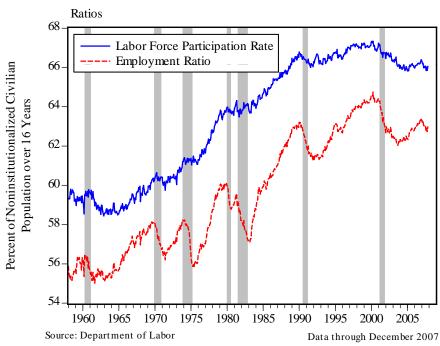






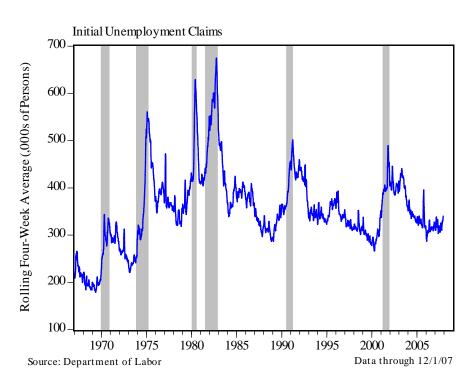
Labor Markets: Unemployment, the Labor Force Participation Rate and Employment Rate

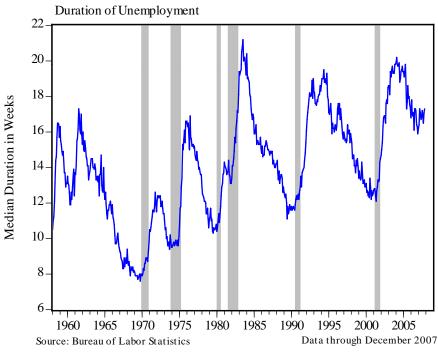






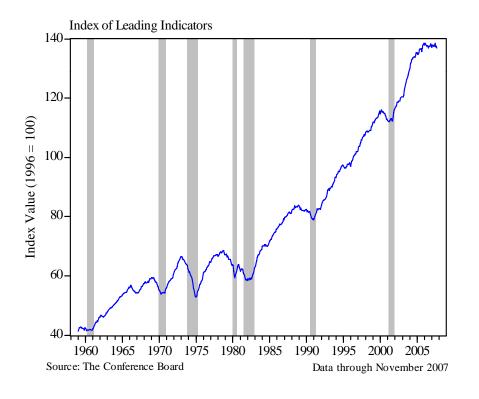
Labor Markets: Initial Unemployment Claims and the Duration of Unemployment

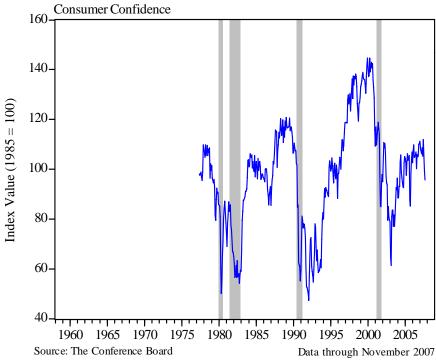






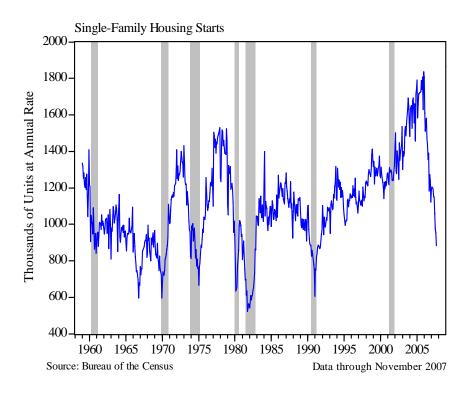
Leading Indicators and Consumer Confidence

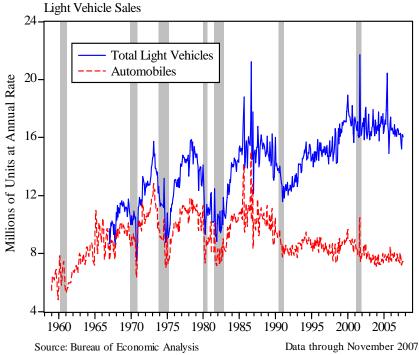






Light Vehicle Sales and Housing







Equity Prices

2007 will be the fifth year to post a December-to-December gain

But the year-end level will be beneath the peak for the year

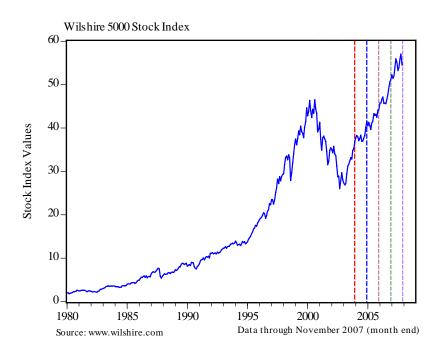
Generally, wealth effect has had minimal effect on spending in the short run

However, it can affect consumer confidence/sentiment

That can have a ripple effect on spending, particularly if other factors weigh heavily:

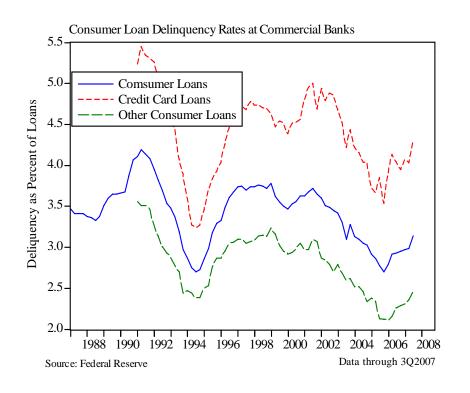
- Iraq,
- Nuclear trouble spots: Pakistan, Iran, and North Korea
- Perception of policy paralysis
- Global concerns over uncertainty of extent of the subprime problem

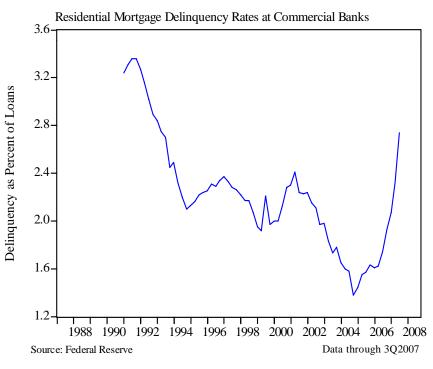
Early stage of foreign central banks' diversification efforts will not directly affect equity prices but may have an indirect effect though the dollar





Household Delinquency Rates at Commercial Banks

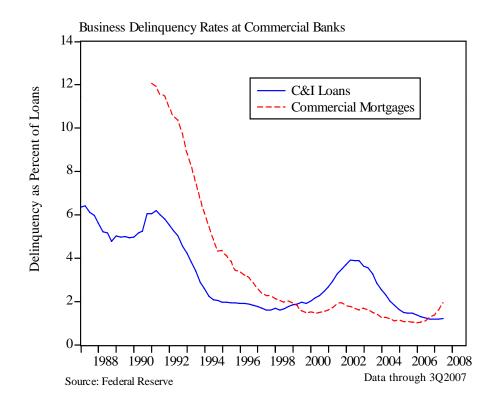






The U.S. Cycle in Perspective

Business Delinquency Rates at Commercial Banks



C&I loan delinquencies continue their decline

Commercial real estate delinquencies

- did not turn upward during the 2000 recession
- But have inched up this year

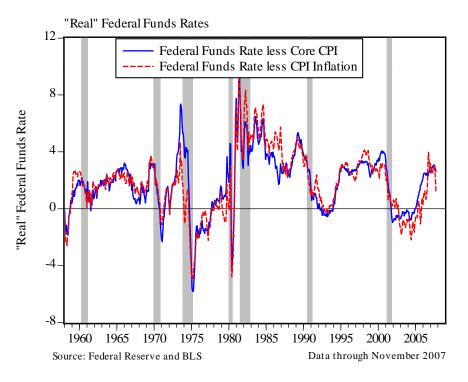
Looking forward, there is some question as to the lending capacity of banks

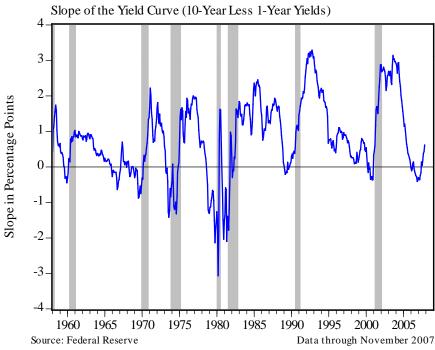
- Earnings at big banks affected by Level 3 asset value
- Capital at big banks may constrain lending
- The Federal Reserve has injected liquidity
- But banks seem to be protecting their liquidity
- Bottom line Situation is more "iffy" than a year ago

Positive: Federal Reserve has and will attempt to re-liquefy the economy



The U.S. Outlook – Setting the Stage The Interest Rate Regime

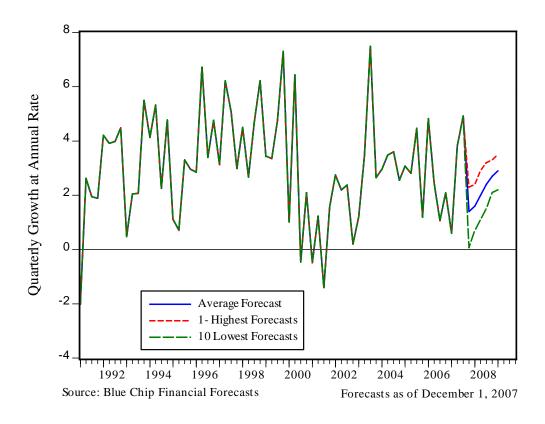






The U.S. Outlook – Graphic Portrayal

Blue Chip Short-Term Economic Forecasts



Baseline U.S. Outlook Table 1

23 GNP Deflator ("96=100) * 24 CPI (1982-84=100) * 25 PPI (1982=100) *		z <u>α</u>	13 Federal Defense (96\$) 14 Change * 15 Fed. Nondefense (96\$)	10 Change * 11 Resid. Construction (96\$) 12 Change *	7 Equipment and Software (96\$) 8 Change * 9 Nonresid. Construction (96\$)	5 Personal Consump. Exp. (96\$)	1 Gross Domestic Product 2 Change * 3 Gross Dom. Product (96\$) 4 Change *	
4.2 3.8 6.7	0.1 -5.8	1254.2	491.6 -10.8 248.4	6.3 506.3 -16.3	3.7 1045.3 0.3 282.6	8215.7	13551.9 5.3 11412.6 0.6	I(A) 2007
2.6 6.0 10.0	5.8 1.3	1263.5 3.0	501.7 8.5 248.9	26.2 490.7 -11.8	1.4 1057.4 4.7 299.5	8244.3	13768.8 5.3 11520.1 3.8	II(A) 2007
0.9 1.9 0.8	32.9 29.8 3.0	1270.0 2.1 -533.4	513.9 10.1 249.5	14.3 464.5 -19.7	2.7 1075.9 7.2 309.7	8298.5	13967.3 5.3 11659.3 4.9	2007 =====: III(A) 2007
2.4	18.7 18.4 0.3	1277.1 2.3	514.0 0.1 251.0	0.8 446.2 -14.9	3.3 1085.4 3.6 310.3	8366.8	14146.1 5.2 11739.0 2.8	IV(E) 2007
2.4	21.1	1284.2 2.2 -520.6	516.0 1.6 252.7	-2.0 437.0 -8.0	2.3 1093.7 3.1 308.8	8415.2	14315.1 4.9 11808.0 2.4	I(E) 2008
2.3 2.6 2.5	22.2 23.2 -1.0	1291.3 2.2 -508.9	517.0 0.7 254.3	-1.5 432.1 -4.4	2.0 1098.8 1.9 307.6	8457.2	14475.4 4.6 11871.7 2.2	II(E) 2008
2.3 2.6 2.5	30.9 31.7 -0.8	1298.5	518.2 1.0 256.0	-5.7 429.3 -2.6	2.3 1105.9 2.6 303.1	8505.9	14653.1 5.0 11948.7 2.6	2008 ====== III(E) 2008
2.3	31.6 32.3 -0.7	1305.6	519.4 0.9 257.4	-4.5 430.8 1.5	2.6 1114.6 3.2 299.6	8560.1	14833.9 5.0 12028.1 2.7	IV(E) 2008
2.3 2.5 2.5	32.3 33.0 -0.7	1312.9	520.5 0.9 259.0	-1.4 434.7 3.7	2.9 1126.2 4.2 298.6	8622.1	15033.5 5.5 12121.6 3.1	I(E) 2009
2.3 2.5 2.5	32.4 33.2 -0.7	1320.1 2.2	521.7 0.9 260.7	0.2 438.4 3.4	3.3 1140.6 5.2 298.7	8693.2	15243.5 5.7 12222.5 3.4	II(E) 2009
2.3	32.5 33.3 -0.7	1327.5	522.9 0.9 262.5	-0.4 444.2 5.4	3.5 1155.7 5.4 298.4	8767.2	15458.4 5.8 12326.0 3.4	2009 ====== III(E) 2009
2.2	32.6 33.3 -0.7	1334.8	524.1 0.9 264.2	0.7 452.1 7.4	3.3 1171.1 5.5 298.9	8837.7	15674.6 5.7 12429.2 3.4	IV(E) 2009
2.6 2.7 3.4		2.2	-0.5	-16.3	11.9	2.9	5.0 2.3	Year-ov 2007
2.2		2.3	2.4	-9.4	3.5 1.4	2.5	2.9	Year-over-Year Growth
2.5 2.5		2.2	0.9	2.3	4.1 -2.0	2.9	5.4 3.0	2009

Cyclical Characteristics

Table 2

25 GDP ('96\$)** Change *	24 Net Exports ('96\$)	22 Gross Domestic Purchases ('96\$)& 23 Change *	21 Chg. in Business Inventories	19 Noncyclical Demand ('96\$)@ 20 Change *	13 Resid. Construction (965) 14 Change * 15 Nonresid. Construction ('965) 16 Change * 17 Equipment and Software ('965) 18 Change *		7 Light Vehicles and Parts ('96\$) 8 Change * 9 Other Durables ('96\$) 10 Change *	5 Cyclical Consumer Demand ('96\$)	3 Cyclical Domestic Demand ('96\$) 4 Change *	1 Domestic Final Sales ('96\$) 2 Change *	
11412.6 0.6	-612.1	12044.7 1.2	0.1	8355.2 0.5	506.3 -16.3 282.6 6.3 1045.3	1815.2	444.5 9.2 778.7 8.6	1223.2	3057.4	12024.6 1.7	I(A) 2007
11520.1 3.8	-573.9	12112.5 2.3	5.8	8444.1 4.3	490.7 -11.8 299.5 26.2 1057.4 4.7	1829.3	441.5 -2.7 786.9 4.3	1228.4	3076.0	12088.2 2.1	II(A) 2007
11659.3 4.9	-533.4	12215.4 3.4	32.9	8568.8 6.0	464.5 -19.7 309.7 14.3 1075.9	1827.5	437.7 -3.4 802.7 8.3	1240.4	3090.5	12159.8 2.4	2007 ===== III(A) 2007
11739.0 2.8	-530.5	12269.5 1.8	18.7	8656.9 4.2	446.2 -14.9 310.3 0.8 1085.4 3.6	1841.9	432.7 -4.5 807.5	1240.2	3082.1	12250.8 3.0	IV(E) 2007
11808.0 2.4	-520.6	12328.7 1.9	21.1	8720.9 3.0	437.0 -8.0 308.8 -2.0 1093.7 3.1	1839.5	434.8 2.0 812.8 2.7	1247.7	3087.1	12307.6 1.9	I(E) 2008
11871.7 2.2	-508.9	12380.6 1.7	22.2	8783.9 2.9	432.1 -4.4 307.6 -1.5 1098.8 1.9	1838.5	431.7 -2.9 817.5 2.3	1249.2	3087.7	12358.4	II(E) 2008
11948.7 2.6	-499.0	12447.7	30.9	8854.1 3.2	429.3 -2.6 303.1 -5.7 1105.9 2.6	1838.3	432.3 0.5 824.0 3.2	1256.3	3094.6	12416.9 1.9	2008 ===== III(E) 2008
12028.1 2.7	-491.0	12519.1 2.3	31.6	8915.8 2.8	430.8 1.5 299.6 -4.5 1114.6 3.2	1845.1	435.6 3.1 831.6 3.7	1267.2	3112.2	12487.5 2.3	IV(E) 2008
12121.6 3.1	-484.8	12606.4 2.8	32.3	8978.7 2.9	434.7 3.7 298.6 -1.4 1126.2 4.2	1859.5	442.1 6.2 841.3 4.7	1283.4	3142.9	12574.1 2.8	I(E) 2009
12222.5	-483.4	12705.9	32.4	9037.9	438.4 3.4 298.7 0.2 1140.6 5.2	1877.7	454.6 11.7 852.3	1306.9	3184.6	12673.5 3.2	II(E) 2009
12326.0 3.4	-484.8	12810.8 3.3	32.5	9096.7	444.2 5.4 298.4 -0.4 1155.7 5.4	1898.3	465.7 10.1 865.4 6.3	1331.1	3229.3	12778.3	2009 ===== III(E) 2009
12429.2 3.4	-486.3	12915.5	32.6	9156.6 2.7	452.1 7.4 7.89 298.9 0.7 1171.1	1922.2	472.3 5.8 878.1 6.0	1350.4	3272.6 5.5	12883.0 3.3	IV(E) 2009
2.3		1.7		3.1	11.9 15	-2.5	1.1 6.4	4.5	0.2	2.3	Year-ov 2007
2.9		2.1		3.7	-9.4 3.5 3.5	0.6	-1.3 3.5	1.8	0.6	1.9	Year-over-Year Growth 007 2008 200
3.0		2.7		2.8	-2.0 4.1	2.7	5.8 4.6	5.0	3.6	3.2	owth 2009

[@] Noncyclical Demand = Consumer spending on nondurable goods and services and all forms of government spending (excluding CCC inventories) & Gross Domestic Purchases = Domestic final demand plus Change *

* Quarter-to-quarter percent Change *

A = Actual; E = Forecast

Historical sources: BEA and BLS

Household Sector Table 3

		0, = 0, 0 = 0	
Private Housing Starts (Mil.) Change * Single-Tamily Multi-Family Existing Home Sales (Th.) Change *	Lt. Vehicles Change * New Auto Sales (Mil.) Change * New Light Truck Sales (Mil.) Change *	Personal Consump. Exp. (1965) Change * Autos & Parts Change * Other Durable Goods Change * Nondurable Goods Change * Services Change *	Personal Income (\$ Bii.) Change * Civilian Employment (Mil.) Change * Unemployment Rate
1.460 -22.1 1.172 0.288 6423.3 10.6	16.4 3.4 7.6 -3.4 8.9	8215.7 3.7 444.5 9.2 778.7 8.6 2386.6 3.0 4630.7	11469.2 10.0 146.0 146.0
1.464 1.1 1.166 0.299 5916.7 -28.0	16.0 -9.4 7.7 5.6 8.4 -5.7	8244.3 1.4 441.5 -2.7 786.9 4.3 2383.8 -0.5 4656.7	II(A) 2007 11577.3 3.8 146.0 -0.2 4.5
1.304 -37.2 0.995 0.308 5423.3 -29.4	15.9 -4.2 7.3 -16.4 8.5	8298.5 2.7 437.7 -3.4 802.7 8.3 1.9 4688.8 2.8	2007 ===== III(A) 2007 11741.8 5.8 5.8 146.1 0.3 4.6
1.150 -39.4 0.900 0.250 5517.2	15.6 -5.5 7.4 4.8 8.2	8366.8 3.3 432.7 -4.5 807.5 2.4 2.405.8 4720.8	IV(E) 2007 11890.9 5.2 146.3 0.7 4.7
1.155 1.8 0.900 0.255 5523.1	15.7 0.3 7.4 0.3 8.2 0.1	8415.2 2.3 434.8 2.0 812.8 2.7 2.414.6 1.5 4752.9	I(E) 2008 12037.4 5.0 146.6 0.8 4.8
1.147 -2.8 0.925 0.222 5636.2	15.5 -4.8 7.3 -4.8 8.1	8457.2 2.0 431.7 -2.9 817.5 2.3 2424.0 1.6 4784.1	II(E) 2008 12176.3 4.7 146.8 0.7 4.9
1.191 16.0 0.950 0.241 5704.1	15.4 -1.6 7.3 -1.6 8.1	8505.9 2.3 432.3 0.5 824.0 3.2 2434.1 1.7 4815.5	2008 ===== III(E) 2008 12318.9 4.8 4.8 147.1 0.7 5.0
1.264 26.8 1.025 0.239 5884.4 13.3	15.4 0.6 7.3 0.6 8.1	8560.1 2.6 435.6 3.1 831.6 3.7 2445.6 1.9 4847.3	IV(E) 2008 12471.1 5.0 147.4 0.9 5.0
1.362 34.8 1.100 0.262 6031.0 10.3	15.6 3.4 7.4 3.4 3.2 8.2	8622.1 2.9 442.1 6.2 841.3 4.7 2459.0 2.2 4879.7 2.7	I(E) 2009 12633.9 5.3 147.8 1.0 5.0
1.418 17.5 1.150 0.268 6149.8 8.1	15.9 8.8 7.5 8.8 8.8	8693.2 3.3 454.6 11.7 852.3 852.3 2473.6 2473.6 4912.7	II(E) 2009 12808.5 5.6 5.6 148.3 1.3 4.9
1.517 31.3 1.225 0.292 6319.2 11.5	16.2 7.3 7.7 7.3 8.5	8767.2 3.5 465.7 10.1 865.4 6.3 2490.0 2.7 4946.1	2009 ===== III(E) 2009 12988.7 5.7 5.7 148.8 1.4 4.9
1.603 24.6 1.300 0.303 6476.4 10.3	16.3 3.0 7.7 3.0 8.6 0.7	8837.7 3.3 472.3 5.8 878.1 6.0 2507.3 2.8 4980.0	IV(E) 2009 13170.8 5.7 149.3 1.4 4.9
-25.8	-3.1 -3.5 -2.7	6.4 2.8 2.8	Year-ov 2007 6.2
-11.6 -2.3	-2.0 -4.2	2.5 1.5 2.7	Year-over-Year Growth 200 2008 200 6.2 5.0 5.
9.8	3 3 3 3 2 2	2.9 5.8 4.6 2.2 2.7	7.00 rowth

Corporate Sector

Table 4

18 17 16	5 4 3	12 11 10 9	8 7	συ4υν	_
Output per Hour * Hourly Compensation * Unit Labor Costs *	Change * Change *	Corporate Profits (B.T.) Corporate Profits (A.T.) Change * Internal Funds (A.T.)	Chg. in Bus. Invent. ('96\$) Chg. In Nonfarm Inventories	Change * Structures Change * Producer Equip. & Software Change *	Fixed Business Invest. ('96\$)
0.2 4.2 5.3	9.8 759.4 13.1	1815.8 1363.3 8.2 839.2	0.1 -5.8	5.4 282.6 6.3 1045.3 0.3	I(A) 2007 1321.7
3.6 4.2 2.2	7.0 784.2 13.7	1931.5 1441.4 25.0 853.5	5.8 1.3	5.4 299.5 26.2 1057.4 4.7	II(A) 2007
5.3 4.2 -0.2	-16.6 807.7 12.5	1879.5 1408.6 -8.8 815.7	32.9 29.8	5.4 309.7 14.3 1075.9 7.2	III(A) 2007
2.3 5.1 2.8	-10.6 828.6 10.7	1816.3 1362.2 -12.5 793.2	18.7 18.4	2.4 310.3 0.8 1085.4 3.6	IV(E) 2007 1395.7
1.7 3.1 1.4	0.1 848.1 9.8	1846.7 1385.0 6.9 793.5	21.1 21.9	1.9 308.8 -2.0 1093.7 3.1	I(E) 2008 1402.4
1.7 3.4 1.7	3.0 867.7 9.5	1869.6 1402.2 5.1 799.4	22.2	1.1 307.6 -1.5 1098.8 1.9	II(E) 2008 1406.4
2.2 3.9 1.8	0.2 888.1 9.8	1883.7 1412.8 3.1 799.8	30.9 31.7	0.7 303.1 -5.7 1105.9 2.6	III(E) 2008 1409.0
2.1 2.1	0.5 908.8 9.7	1897.9 1423.4 3.0 800.9	31.6 32.3	1.5 299.6 -4.5 1114.6 3.2	IV(E) 2008 1414.3
2.4 4.3 1.9	1.0 931.1 10.1	1923.9 1442.9 5.6 802.9	32.3 33.0	3.0 298.6 -1.4 1126.2 4.2	I(E) 2009 1424.8
2.4 4.6 2.1	1.1 954.0 10.2	1952.8 1464.6 6.1 805.1	32.4 33.2	4.2 298.7 0.2 1140.6 5.2	II(E) 2009 1439.3
2.4 4.5 2.1	1.1 977.9 10.4	1982.6 1487.0 6.3 807.3	32.5 33.3	4.2 298.4 -0.4 1155.7 5.4	III(E) 2009 1454.1
2.3 4.4 2.1	1.4 1002.5 10.5	2014.8 1511.1 6.7 810.2	32.6 33.3	4.5 298.9 0.7 1171.1	IV(E) 2009 1470.1
1.6 5.7 4.0	13.7	-5.5 3.1		11.9	Year-o 2007
2.5 4.1 1.7	10.5	-3.3		3.5	Year-over-Year Growth 1007 2008 200 4.5 3.1 2.8
2.3 4.3 2.0	10.0	5.0		-2.0 4.1	2009 2.8

International Sector

Table 5

0,	ω 4 10	~ -	
Trade-Weighted Index	Change * Imports ('96\$) Change *	Net Exports ('96\$) Exports ('96\$)	
81.9	1.1 1966.8 3.9	-612.1 1354.7	I(A) 2007
79.3	7.5 1953.4 -2.7	-573.9 1379.5	II(A) 2007
77.0	18.9 1973.8 4.2	-533.4 1440.4	III(A) 2007
77.5	13.0 2015.7 8.8	-530.5 1485.2	2007
78.5	11.1 2045.3 6.0	-520.6 1524.7	I(E) 2008
79.4	10.2 2071.1 5.1	-508.9 1562.2	II(E) 2008
80.2	9.6 2097.3 5.2	-499.0 1598.3	III(E) 2008
81.0	9.2 2124.8 5.3	-491.0 1633.8	IV(E) 2008
81.6	8.9 2153.6 5.5	-484.8 1668.9	I(E) 2009
82.3	8.6 2187.0 6.3	-483.4 1703.6	II(E) 2009
82.8	8.3 2222.8 6.7	-484.8 1738.0	2009 I(E) III(E) 2009 2009
83.3	8.3 2259.4 6.8	-486.3 1773.1	IV(E) 2009
4.3	2.5	8.5	Year 2007
1.0	5.4	11.6	ır-over-Yeaı 7 2008
3.4	5.8	8.9	r Growth 2009

6 5 4 3 2 1

Historical sources: BEA, BLS, and Federal Reserve



Outlook for Interest Rates

Market-Based Forecasts: Futures Market over the Next Year

Futures market sees a cuts in the federal funds rate through late 2008

 Accuracy of such forecasts is marginal at best

Nonetheless, this view is reflected in longterm Treasury yields

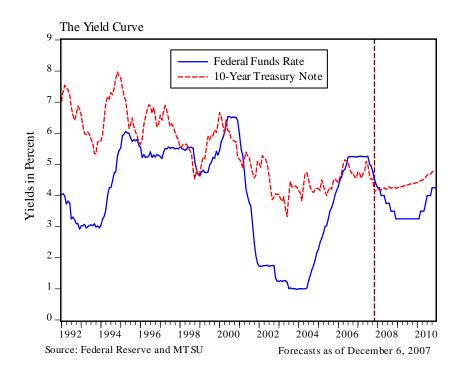
- Current short-term yields have "built in" significant cuts in the federal funds target rate
- Current short-term yields may also reflect flight to quality which can corrupt the forecast content of the spread between the federal funds rate and other short-term rates

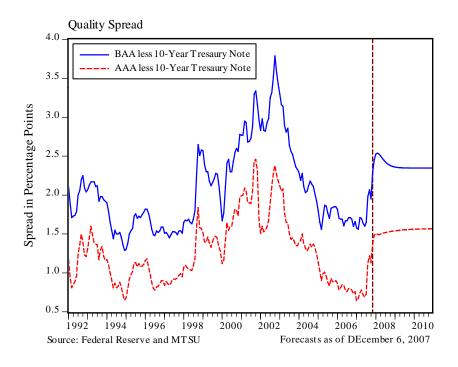
Forecasts Usi	ing Futures C	ontracts
		Implicit
Contract	Settlement	Interest
Date	Price	Rate
Dec-07	95.755	4.245
Jan-08	95.86	4.14
Feb-08	96.055	3.945
Mar-08	96.145	3.855
Apr-08	96.235	3.765
May-08	96.395	3.605
Jun-08	96.415	3.585
Jul-08	96.56	3.44
Aug-08	96.67	3.33
Sep-08	96.75	3.25
Source: cbot.o	com as of 12/	/5/07



Interest Rate Outlook - Graphic Portrayal

MTSU Baseline Interest Rate Forecast





13 14 16	12 11 10	ဖထ	7 6 5	0 0 4	-
Eurodollar Deposit 1-Month 3-Month 6-Month Prime Rate	Negotiable CDs 1-Month 3-Month 6-Month	Treasury Bills 1-Month 3-Month	Finance Paper 1-Month 3-Month 6-Month	Commercial Paper 1-Month 3-Month 6-Month	Federal Funds
5.32 5.35 5.36 8.25	5.28 5.31 5.32	5.12 5.14	5.24 5.23 5.23	5.22 5.19 5.18	l(A) 2007 5.26
5.32 5.34 5.36 8.25	5.29 5.32 5.33	4.87 5.00	5.24 5.24	5.23 5.22 5.21	II(A) 2007 5.25
5.45 5.47 5.38 8.18	5.42 5.42 5.36	4.42 4.60	5.19 5.20 5.25	5.14 5.14 5.13	== 2007 === (A) 2007 5.07
4.78 4.99 4.90 7.53	4.74 4.93 4.85	3.59 3.77	4.54 4.59 4.78	4.51 4.45 4.46	IV(E) 2007 4.55
4.26 4.49 4.40 7.25	4.25 4.45 4.56	3.66 3.83	4.27 4.24 4.48	4.28 4.22 4.25	I(E) 2008 4.25
4.18 4.28 4.30 7.00	4.19 4.25 4.44	3.72 3.88	4.24 4.21 4.33	4.25 4.20 4.19	II(E) 2008 4.00
4.34 4.24 4.54 6.75	4.35 4.23 4.48	3.63 3.80	4.24 4.16 4.19	4.24 4.14 4.14	= 2008 === III(E) 2008 3.75
4.34 4.41 4.36 6.58	4.33 4.39 4.38	3.58 3.75	4.22 4.15 4.20	4.24 4.13 4.15	IV(E) 2008
3.93 4.28 4.05 6.50	3.93 4.26 4.20	3.52 3.70	4.01	4.04 4.03 4.03	I(E) 2009 3.50
3.87 4.14 4.18 6.50	3.88 4.13 4.20	3.52 3.71	3.97 4.00	4.00 3.98 3.98	II(E) 2009 3.50
4.04 4.11 4.26 6.50	4.06 4.10 4.23	3.56 3.74	4.02 4.02	4.04 4.00 4.00	= 2009 ==== III(E) 2009 3.50
4.06 4.03 4.09 6.50	4.06 4.01 4.16	3.54 3.73	4.02 3.98	4.05 3.99 4.00	IV(E) 2009 3.50
5.22 5.29 5.25 8.05	5.18 5.24 5.22	4.50 4.63	5.05 5.07 5.12	5.03 5.00	9 An 2007 5.03
4.28 4.35 4.40 6.90	4.28 4.33 4.47	3.65	4.24 4.19 4.30	4.25 4.17 4.18	Annual Averag 2008 3.90
3.98 4.14 4.14 6.50	3.98 4.13 4.20	3.53 3.72	4.00 4.02	4.03 4.00 4.00	iges 2009 3.50

13 12	1 10 °	8 7 6 5 4 3 2 1	Ca
Mortgage Rates - Secondary Mkr 30-Yr (FLHMC Req Net Yield) 15-Yr (FHLMC Req Net Yield)	Mortgage Rates - Primary Mkt 30-Yr (FHLMC - PMMS) 15-Yr (FHLMC - PMMS) ARM (FHLMC - PMMS)	U.S. Treasury Notes and Bonds 1-Yr Note 2-Yr Note 10-Yr Note 30-Yr Note 30-Yr Note Other Bonds AA Bonds BAA Bonds BAS Bonds State and Local	Capital Market Instruments
5.96	6.05 5.70 5.47	1(A) 2007 5.01 4.77 4.65 4.88 4.90 5.36 6.30	
6.37	6.26 5.87 5.55	II(A) 2007 4.93 4.81 4.85 5.07 5.68 6.49	
6.55	6.35 5.92 5.68	1007 ==== III(A) 2007 4.52 4.38 4.450 4.73 5.01 5.75 6.63 4.57	
6.29 5.96	5.91 5.41 5.73	IV(E) 2007 3.76 3.55 3.83 4.27 4.65 5.60 6.50	
6.24	6.09 5.41 6.25	I(E) 2008 3.91 3.58 3.76 4.21 4.70 5.71 6.74 4.69	
6.24 5.98	6.07 5.28 6.26	II(E) 2008 3.88 3.66 3.81 4.25 4.71 5.75 6.72	
6.22 5.94	6.03 5.24 6.14	2008 ==== III(E) 2008 3.82 3.64 3.64 3.83 4.27 4.63 5.79 6.67 4.64	
6.23	6.07 5.33 6.04	IV(E) 2008 3.78 3.64 3.64 3.86 4.30 4.70 4.70 6.67 4.64	
6.23	6.10 5.35 5.93	I(E) 2009 3.73 3.63 3.63 3.90 4.32 4.71 5.87 6.68	
6.26 5.91	6.13 5.38 5.89	II(E) 2009 3.74 3.67 3.67 3.96 4.37 4.70 5.92 6.72	
6.29	6.17 5.44 5.88	2009 III(E) 2009 3.77 3.72 4.03 4.41 4.76 6.76 6.76	
6.32 5.94	6.21 5.50 5.84	N(E) 2009 3.76 3.74 4.45 4.45 4.77	
6.36	6.14 5.73 5.61	2007 4.56 4.38 4.44 4.63 4.63 4.91 5.57 6.48	
6.23 5.96	6.06 5.31 6.17	Annual Averages 2008 3.85 3.63 3.82 4.25 4.25 4.66	Ta
6.27 5.92	6.15 5.42 5.89	ges 2009 3.75 3.69 3.89 4.74 4.74	Table 7



Personal Income – Tennessee versus U.S.

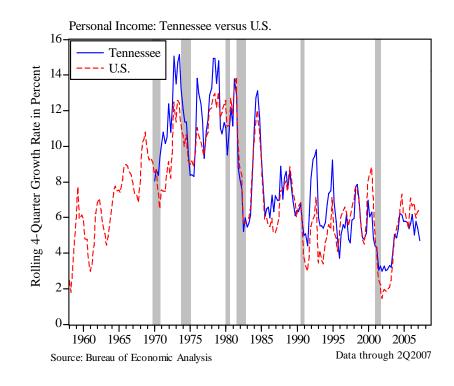
Quarterly growth in state and nation follows roughly the same cyclical pattern

- Over time, each 1% growth in U.S. personal income is met with 1% growth in Tennessee
- But there are sizeable short-run deviations

In the early days of the current expansion, Tennessee's growth was faster than that of the U.S.

Then the two series tracked each other closely for a few years

More recently, U.S. income growth has been marginally above Tennessee's





Labor Markets - Tennessee versus U.S.

Tennessee's growth pattern moves in a roughly similar cyclical pattern

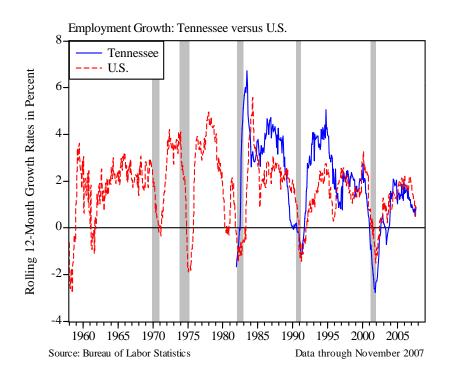
But differences are evident

Pattern has tighter co-movement as decline gathers momentum

In the early part of the common sample period, Tennessee typically had a stronger employment growth than the country as a whole in the upswing

But Tennessee and U.S. are moving into closer cyclical alignment in the past 10 years

More recently, Tennessee and U.S. move in tight tandem





Housing Activity – Tennessee versus U.S.

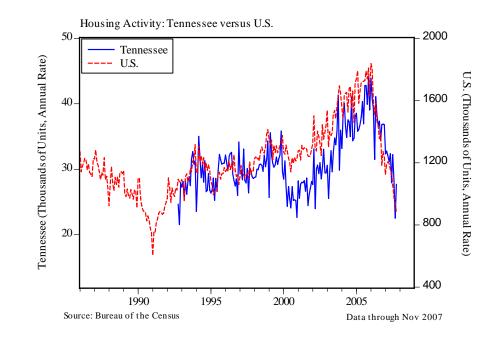
Housing in Tennessee generally moves with the U.S. housing cycle

- But there was break in the tightness of the relationship 2000-2004
- Tightness resumes in the late stage of the housing upswing and so far in the housing slump

Some saw the 2005-2006 housing boom as a potential bubble

- If so, both the volume of permits and valuation could be at risk
- Risk is at both the national level and the state level

In the past, downturn was more service in Tennessee than the country as a whole





Consumer Spending

Recent deceleration in sales growth is akin its behavior going into to the 1990 and 2001 recession

But it is too early to sale a recession in imminent

Sales growth has temporarily faltered and rebounded s on several occasions over the 1986-2007 period

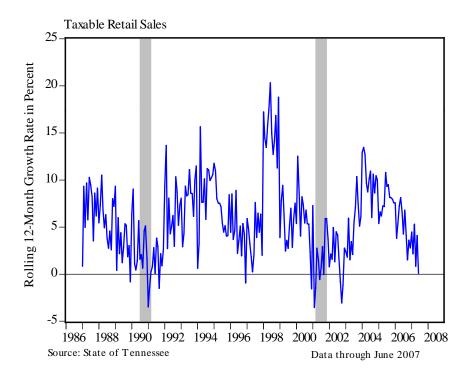


Table 8

17 18 19 20	6 1 1 1 2	10 Ten	Nati
Retail Sales Change * Single-Family Building Permits (T) Change *	Change * Dividends & Interest Change * Income Per Employee (T) Change *	nessee Nonagricultural Employment (T) Change * Personal Income	onal Trends Civilian Employment (Mil.) Change * Croange * Change * Change * Housing Starts (Mil. of Units) Change *
87.9 5.2 32.397 -40.2	3.7 24.4 9.5 71.869 2.6	2799.3 1.0 201.2	I(A) 2007 146.0 1.1 1146.9.2 10.0 78.533 8.7 1.460 -22.1
88.9 4.7 30.495 -21.5	5.2 24.9 9.7 72.743 5.0	2800.7 0.2 203.7	II(A) 2007 146.0 -0.2 11577.3 3.8 79.320 4.1 1.464 1.1
90.0 4.9 27.662 -32.3	6.0 25.3 7.0 73.596 4.8	2809.1 1.2 206.7	III(A) 2007 146.1 0.3 11741.8 80.394 5.5 1.304 -37.2
91.0 4.8 27.639 -0.3	5.2 25.7 5.2 74.503 5.0	2810.2 0.2 209.4	IV(E) 2007 146.3 0.7 11890.9 5.2 81.282 4.5 1.150 -39.4
91.9 3.9 27.663 0.3	5.3 25.9 3.8 75.335 4.5	2815.3 0.7 212.1	I(E) 2008 246.6 0.8 12037.4 5.0 82.110 4.1 1.155 1.8
93.0 4.9 27.555 -1.6	5.2 26.1 3.5 76.122 4.2	2822.0 1.0 214.8	II(E) 2008 246.8 146.8 0.7 12176.3 4.7 82.916 4.0 1.147 -2.8
93.9 4.1 27.482 -1.1	5.2 26.4 3.4 76.952 4.4	2827.1 0.7 217.5	2008 ==== III(E) 2008 147.1 0.7 12318.9 4.8 83.740 4.0 1.191 16.0
95.0 4.5 27.875 5.8	5.4 26.6 3.5 77.797 4.5	2833.1 0.9 220.4	IV(E) 2008 147.4 0.9 12471.1 5.0 84.593 4.1 1.264 26.8
96.2 5.4 28.740 13.0	5.6 26.8 3.6 78.647 4.4	2841.0 1.1 223.4	I(E) 2009 147.8 1.0 1.0 12633.9 5.3 85.476 4.2 1.362 34.8
97.4 5.2 29.104 5.2	5.8 27.1 3.7 79.511 4.5	2850.2 1.3 226.6	II(E) 2009 148.3 1.3 1.2808.5 5.6 86.386 4.3 1.418 17.5
98.8 5.8 30.283 17.2	5.9 27.3 3.8 80.387 4.5	2859.8 1.3 229.9	III(E) 2009 148.8 1.4 12988.7 5.7 87.308 4.3 1.517 31.3
100.2 5.8 31.238 13.2	5.9 27.6 3.8 81.276 4.5	2869.1 1.3 233.2	IV(E) 2009 149.3 1.4 13170.8 1.3170.8 4.3 1.603 24.6
3.4	6.5 4.4	0.7	Year-ov 2007 1.2 6.2 5.0 5.8
-6.4	4.7 4.6	0.7	Year-over-Year Growth 2007 2008 2008 1.2 0.6 1.1 6.2 5.0 5.3 5.5 5.0 4.3 4.2 -25.8 -11.6 24.0
5.1 8.0	3.6 4.4	5.6	rowth 2009 1.0 5.3 4.2 24.0

Note: Except where noted, all data in billions of dollars. Historic sources: BEA, BLS, State of Tennessee T=Thousands of units, persons, or dollars
*Quarter-to-quarter percent changes expressed at compound annual rates.

A = Actual; E = Forecast

December 5, 2007

												Forecasts		
	FY96-97	FY97-98	FY98-99	FY99-00	FY00-01	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10
1 Total Tax Revenue*	6373.7	6737.7	6979.4	7526.8	7656.4	7469.0	8449.7	9094.0	9638.6	10290.8	11052.7	11677.7		
2 Chg@	5.6	5.7	3.6	7.8	1.7	-2.4	13.1	7.6	6.0	6.8	7.4	5.7		
3 Sales and Use Tax*	3905.0	4099.9	4346.2	4600.7	4643.3	4645.7	5459.4	5810.8	6091.5	6515.6	6815.4	7093.3		
4 Chg@	6.1	5.0	6.0	5.9	0.9	0.1	17.5	6.4	4.8	7.0	4.6	4.1		
5 Income Tax*	128.3	161.3	160.4	179.9	199.4	141.7	102.9	140.0	155.9	194.4	247.6	263.2		
6 Chg@	11.3	25.8	-0.6	12.2	10.8	-28.9	-27.4	36.0	11.4	24.7	27.4	6.3		
7 Gross Receipts Tax*	188.2	188.8	197.5	213.1	248.6	224.3	216.5	219.1	235.9	241.2	277.6	284.4		
8 Chg@	7.0	0.3	4.6	7.9	16.6	-9.8	-3.5	1.2	7.6	2.2	15.1	2.4		
9 Excise plus Franchise Taxes*	893.3	906.2	891.2	1083.0	1102.8	966.3	1071.7	1197.8	1372.0	1491.6	1766.1	1820.9		
10 Chg@	9.2	1.4	-1.7	21.5	1.8	-12.4	10.9	11.8	14.5	8.7	18.4	3.1		
11 Gasoline Tax*	543.3	563.2	567.4	576.1	569.4	576.9	600.1	599.3	608.1	605.6	612.3	602.0		
12 Chg@	1.4	3.7	0.8	1.5	-1.2	1.3	4.0	-0.1	1.5	-0.4	:1	-1.7		
13 Vehicle Registration*	183.6	195.7	201.2	218.6	211.4	219.6	225.0	238.5	244.2	249.5	257.4	260.0		
14 Chg@	-0.6	6.5	2.8	8.7	-3.3	3.9	2.5	6.0	2.4	2.2	3.1	1.0		
15 Fuel Tax*	126.8	133.2	142.5	152.8	173.4	151.2	155.4	167.7	173.7	180.7	185.9	189.0		
16 Chg@	0.2	5.0	7.0	7.2	13.5	-12.8	2.8	7.9	3.5	4.0	2.9	1.7		
17 Privilege Tax*	108.4	124.4	142.6	153.7	160.8	177.4	216.5	246.1	264.9	304.9	313.8	379.5		
18 Chg@	8.6	14.7	14.7	7.8	4.6	10.3	22.1	13.6	7.7	15.1	2.9	20.9		
19 All Other Taxes*	296.8	365.1	330.4	348.9	347.2	365.8	401.9	474.6	492.4	507.3	576.7	785.4		
20 Chg@	0.6	23.0	-9.5	5.6	-0.5	5.4	9.9	18.1	3.7	3.0	13.7	36.2		

Prospects for Tax Revenue: MTSU Forecast

Tennessee Economic Assumptions (Fiscal-Year Basis)	-Year Basis)										_	orecasts		
	FY96-97	FY97-98	FY98-99	FY99-00	FY00-01	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10
Personal Income (Bil \$)	121.6	128.9	137.0	144.9	152.0	156.8	161.8	169.7	179.6	190.5	200.7	210.3	222.1	234.7
Chg@	5.5	6.0	6.3	5.7	4.9	<u>3.</u>	3.2	4.8	5.8	6.1	5.4	4.8	5.6	5.7
Nonagricultural Employment (Mil)	2.556	2.611	2.659	2.715	2.720	2.664	2.666	2.680	2.726	2.762	2.791	2.819	2.843	2.867
Chg@	1.4	2.1	1.9	2.1	0.2	-2.1	0.1	0.5	1.7	1.3	1.0	1.0	0.9	0.9
Income Per Employee (Th \$)	47.6	49.4	51.5	53.4	55.9	58.9	60.7	63.3	65.9	69.0	71.9	74.6	78.1	81.9
Chg@	4.0	3.8	4.4	3.6	4.7	5.3	3.1	4.3	4.1	4.7	4.3	3.7	4.7	4.8
Retail Sales (Bil \$)	48.3	53.5	58.8	62.6	64.1	65.9	67.0	73.1	78.1	82.9	87.2	91.0	95.6	100.5
Chg@	3.1	10.8	9.9	6.5	2.4	2.9	1.7	9.1	6.8	6.1	5.2	4.3	5.1	5.1
Building Permits (Th of Units)	29.2	29.4	31.2	29.7	26.3	28.0	30.2	36.0	37.2	40.2	35.0	35.6	37.9	38.2
0 Chg@	-6.8	0.7	6.0	4.7	-11.4	6.4	8.0	19.0	3.4	8.0	-13.0	1.8	6.5	0.6
Revenue Forecasts											_	orecasts		
	FY96-97	FY97-98	FY98-99	FY99-00	FY00-01	FY01-02	FY02-03	FY03-04	FY04-05	FY05-06	FY06-07	FY07-08	FY08-09	FY09-10
11 Total Tax Revenue*	6,373.7	6,737.7	6,979.4	7,526.8	7,656.4	7,469.0	8,449.7	9,094.0	9,638.6	10,290.8		11,344.7	11,836.3	12,385.4
12 Chg@	5.6	5.7	3.6	7.8	1.7	-2.4	13.1	7.6	6.0	6.8		2.6	4.3	4.6
13 Sales and Use Tax*	3,905.0	4,099.9	4,346.2	4,600.7	4,643.3	4,645.7	5,459.4	5,810.8	6,091.5	6,515.6	6,815.4	6,912.8	7,242.6	7,586.5
14 Chg@	6.1	5.0	6.0	5.9	0.9	0.1	17.5	6.4	4.8	7.0	4.6	1.4	4.8	4.7
15 Income Tax*	128.3	161.3	160.4	179.9	199.4	141.7	102.9	140.0	155.9	194.4	247.6	263.5	279.2	295.8
6 Chg@	11.3	25.8	-0.6	12.2	10.8	-28.9	-27.4	36.0	11.4	24.7	27.4	6.5	5.9	6.0
17 Gross Receipts Tax*	188.2	188.8	197.5	213.1	248.6	224.3	216.5	219.1	235.9	241.2	277.6	286.5	289.5	295.7
8 Chg@	7.0	0.3	4.6	7.9	16.6	-9.8	-3.5	1.2	7.6	2.2	15.1	3.2	1.1	2.1
19 Excise plus Franchise Taxes*	893.3	906.2	891.2	1,083.0	1,102.8	966.3	1,071.7	1,197.8	1,372.0	1,491.6	1,766.1	1,758.7	1,842.7	1,948.6
0 Chg@	9.2	1.4	-1.7	21.5	1.8	-12.4	10.9	11.8	14.5	8.7	18.4	-0.4	4.8	5.8
21 Gasoline Tax*	543.3	563.2	567.4	576.1	569.4	576.9	600.1	599.3	608.1	605.6	612.3	622.1	629.7	642.3
22 Chg@	1.4	3.7	0.8	1.5	-1.2	1.3	4.0	-0.1	1.5	-0.4	1.1	1.6	1.2	2.0
23 Vehicle Registration*	183.6	195.7	201.2	218.6	211.4	219.6	225.0	238.5	244.2	249.5	257.4	266.7	274.9	283.4
24 Chg@	-0.6	6.5	2.8	8.7	-3.3	3.9	2.5	6.0	2.4	2.2	3.1	3.6	3.1	3.1
25 Fuel Tax*	126.8	133.2	142.5	152.8	173.4	151.2	155.4	167.7	173.7	180.7	185.9	184.8	190.1	195.5
26 Chg@	0.2	5.0	7.0	7.2	13.5	-12.8	2.8	7.9	3.5	4.0	2.9	-0.6	2.9	2.8
27 Privilege Tax*	108.4	124.4	142.6	153.7	160.8	177.4	216.5	246.1	264.9	304.9	313.8	346.9	361.5	380.6
28 Chg@	8.6	14.7	14.7	7.8	4.6	10.3	22.1	13.6	7.7	15.1	2.9	10.6	4.2	5.3
~	296.8	365.1	330.4	348.9	347.2	365.8	401.9	474.6	492.4	507.3	576.7	702.6	726.0	756.9
0 Cha®	0.6	23.0	-9.5	5.6	-0.5	5.4	9.9	18.1	3.7	3.0	13.7	21.8	သ	4.2

@ Annual Percent Change
* Millions of dollars
Annual economic data in lines 1, 3, 5, 7, and 9 are calculated in terms of fiscal years ending in IIQ of the calendar year of the noted fiscal year

December 7, 2007



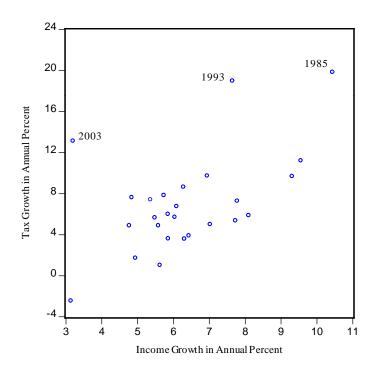
A Consistency Check

Top-down forecasting model projects growth in tax revenue based on personal income growth, controlling for tax rate changes in 1985, 1993, and 2003

Based on personal income projections, the consistency check is below

Growth is far stronger for FY 2007-08 largely because the model cannot capture the shortfall in the running rate for the franchise and excise taxes, the tobacco tax and to some extent the sales tax.

Growth for the coming fiscal year is in line with the baseline projection



	2006	2007	2008	2009	2010
Revenue Growth	6.8	7.4	4.7	4.0	3.9
Renenue (thousand of \$)	10,290,758	11,052,680	11,573,270	12,033,820	12,497,700



Contingency Views

Balancing the Risks

Probabilities

Stronger growth	12.5%		
Baseline	50%		
Weaker growth	37.5%		

Tilting the balance to weak-growth scenario: Asymmetric cost of forecast errors

 Lower than projected tax revenue is a bigger problem for the state than higher than projected tax revenue

Risk Scenario

Faltering U.S. growth with spillover effects to Tennessee

Personal income growth projections in is cut by 2.5% in 2008, 2.8% in 2009, and 1.4% in 2010 versus the baseline

Projected employment growth is cut by one-half a percentage point in 2008 and 2009 from the baseline

Results for this risk scenario, using the consistency model, are reported below

	2006	2007	2008	2009	2010
Revenue Growth	6.8	7.4	2.9	2.0	3.1
Renenue (millions of \$)	10,290,758	11,052,680	11,377,420	11,609,720	11,967,450



The U.S. Outlook – Problem Areas

Monitoring the Likelihood of Weaker Than Projected Growth

Winning the Peace

- Uncertainty for outcome in Iraq and Afghanistan remains
- Nuclear program in Iran remains unresolved
- Uncertainty over the security of nuclear weapons in Pakistan is a complicating factor

Global growth

• On the positive side, Pacific rim, including Japan, remains positive

Pricing power

 Ability to deal with inflation pressures and the fallout from the subprime turmoil may err on the side of accommodation

Sector problems

- Housing starts have fallen fast this year as mortgage credit has become more stringent
- Auto sales are beneath last year's pace, but fall has not been precipitous

Energy

- Oil in the \$90 range this winter will crimp discretionary spending
- OPEC pricing does not seem to be influenced by threshold price of tar sand and shale oil
- OPEC may have lost its ability to limit the upward spiral due to persistent strong oil demands

Interest Rate Cycle and the Yield Curve

- Yield curve shifted from downward to upward slope
 - Downward sloping yield curve has been harbinger of a recession
 - Positive slope may point to continued growth
- But information content of yield curve may be less reliable now compared with earlier interest-rate cycles
 - Hedge funds may have contributed to volatility
 - Shifts in foreign demand could affect long-term yields
 - Recent declines in short and intermediate yields could be driven by flight to quality

The Dollar in International Currency Markets

- Trade deficit remains wide, though exports are benefiting from weaker dollar
- Private foreign appetite for dollar instruments is weakening
- Capital inflow through official foreign institutions remain important but inflow may be siphoned by diversification of SWFs